Siddhant Manocha

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Educational Qualifications

Year	Degree/Certificate	Institute(Board)	Performance
2012-Present	BTech , Computer Science and Engineering	Indian Institute of Technology, Kanpur	9.9/10
2012	Senior School Certificate	Lawrence and Mayo Public School ,Kota (CBSE)	96.2%
2010	Secondary School Certificate	St.Thomas College,Lucknow (ICSE)	95.8%

Scholastic Achievements

- Ranked in top 10 students in the institute among 836 students.
- Awarded the Academic Excellence Award for the academic year 2012-13 by IIT Kanpur for exceptional academic performance.
- Recipient of Summer Undergraduate Research Grant for Excellence (SURGE) 2014, given by, IIT Kanpur.
- Secured All India Rank 100 in IIT-JEE 2012 among 500,000 candidates.
- Selected for Kishore Vigyan Protsahan Yojna (KVPY) in 2012.

Experience

- **Vision Based Robot Motion Planning**   *SURGE | May 2014-July 2014*
  Mentor: Dr .Amitabha Mukerjeee
  - Formulated an algorithm to generate a safe trajectory from initial configuration to final configuration of the robotic arm (with 3 degrees of freedom) using image data of the robotic arm drawn from its known configuration space.
  - Used Gaussian Process Latent Variable Model and Gaussian Process Regression to find an effective mapping between robot images and their corresponding joint angles to generate a path between unknown configurations.
  - The joint angles of the robotic arm were recovered from the corresponding images with an average error of 0.5^{o} per joint angle and statistical analysis showed the results to be sufficiently close to the ground truth solution.
- **Co founder at Fundebaazi.in**   *January 2014-Present*
  - Designed a web based interface to enable people to access career advice easily and efficiently from authentic advisors.
- **City Watch, Crowd Source Android Application**   *Android Application | December 2014*
  - Crowd source solution to address local infrastructural issues and report problems to the municipal government for immediate consideration enabled with public review to enhance authenticity.
  - Android Application developed using web standards through Intel XDK framework.
  - The app won 2nd prize in Software Development at 2nd Inter IIT Technical Meet held at IIT Bombay.
- **My Impress, Cloud Based Presentation Software.**   *Web Application | May 2014-June 2014*
  Supported by Programming Club IIT Kanpur.
  - Developed an online platform to create presentations with cloud support and improved presentation transition effects.
  - Utilized Impress.js framework and Web standards (JavaScript, PHP, MYSQL) to design an online editing and hosting platform.
  - Improved 3-D transitions and transforms with rotate, scale and zoom features in the presentations were implemented.
- **Other Applications**
  - Developed a *Facebook Application* that enables users to search for posts through their wall, their friend's timeline and user groups and enables them to post same comment on multiple posts.
  - Developed the app *Picachu* in *Yahoo Hack-U* that comprised of Google chrome plugin and facebook application to facilitate the users to edit photos online and post them directly as facebook comments.

Technical Skills

Programming languages : C, C++, Perl, Bash, HTML, JavaScript, CSS, PHP, MYSQL
Platforms/Tools   : Windows, Linux, Octave, GNU Plot, Latex, Matlab

Relevant Courses

- *Computer Science*: Data Structures and Algorithms, Fundamentals of Computing, Computer Organization ,Computing Laboratory, Operating Systems[*], Computer Networks[*], Theory of Computation[*]
- *Mathematics*   : Linear Algebra, Discrete Mathematics, Abstract Algebra, Fundamentals of Calculus.   (*:ongoing)

Positions of Responsibility

- Secretary, Programming Club, IIT Kanpur
  - Organized lectures at the hall level and promoted participation in programming events
- Academic Mentor, Counseling Service, IIT Kanpur
  - Provided academic assistance to students from junior batches in Fundamentals of Computing (ESC 101)

Extra Curricular

- Secured second position in Software Development in 2nd Inter IIT-Technical Meet 2014 held at IIT Bombay.
- Secured second position in BattleCity and El Eduvate events in Techkriti, annual technical festival of IIT Kanpur.
- Secured first position in Web-Development in Intra-Hall Technical Fest (Takneek) held at IIT Kanpur